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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

NCR Docket No: **10051**

MMB Docket No. **1001-0778**

Group Art Unit: **3627**

Application of: **Millikan**

Examiner: **R. Laneau**

Serial No. **10/004,982**

Filed: **December 3, 2001**

Title: **System and Method for Adjusting Transaction Length in an Automated Service Device**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March 3, 2005
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Paul J. Maginot
Name of person mailing Document or Fee

Paul J. Maginot
Signature

March 3, 2005
Date of Signature

LETTER

Sir:

Enclosed are an original and three (3) copies of an Appeal Brief in connection with the above-identified patent application. The Notice of Appeal was filed on January 3, 2005, and the Appeal Brief was due two months from this date. Thus, this Appeal Brief is being timely filed on March 3, 2005. Also enclosed herewith is a check for $500.00 to cover the fee required under 37 CFR 1.17(c).

Additionally, please provide any extension of time which may be necessary and charge any fees which may be due to Account No. 13-0014, but not to include any payment of issue fees.

Respectfully submitted,

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March 3, 2005
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ORIGINAL

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March 3, 2005
Date of Signature

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal under 37 CFR § 1.191 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the final rejection of the claims 1-22 of the above-identified patent application. These

claims were indicated as finally rejected in an Office Action dated October 1, 2004. Three copies of the brief are filed herewith, together with the $500.00 fee required under 37 CFR § 1.17(c). Also, please provide any extensions of time that may be necessary and charge any fees that may be due to Deposit Account No. 13-0014, but not to include any payment of issue fees.

(1) REAL PARTY IN INTEREST

NCR Corporation of Dayton, Ohio is the assignee of this patent application, and the real party in interest.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this patent application (serial no. 10/004,982).

(3) STATUS OF CLAIMS

Claims 1-22 are pending in the application.

Claims 1-22 are finally rejected.

Claims 1-22 are being appealed.

Each of claims 1-22 is shown in the Claim Appendix attached to this Appeal Brief.

(4) STATUS OF AMENDMENTS

Appellants have filed no amendments subsequent to the final rejection contained in the Office Action mailed October 1, 2004.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

A first aspect of Appellants' invention relates to a method of operating an automated service device 12 having first functionality and second functionality. (See, e.g., Appellant's specification at page 5, lines 18-19; page 6, lines 10-20; page 8, lines 7-9; and Figs. 1-3.) The method includes obtaining queue length data regarding a queue of potential users of the automated service device 12 during use of thereof by a current user. (See, e.g., Appellant's specification at page 8, line 17 through page 11, line 2; page 13, line 20 through page 14, line 1; and Figs. 2-3.) The method further includes limiting use by the current user of the automated service device 12 to the first functionality only based on the obtained queue length data. (See, e.g., Appellant's specification at page 11, lines 3-11; page 12, lines 17-23; page 14, lines 12-19; and Fig. 3.) The first functionality is main service functionality which is dispensing cash, transferring money, or performing a purchase transaction, while the second functionality is displaying advertisements and displaying an offer for an additional service. (See, e.g., Appellant's specification at page 6, lines 10-20; page 8, lines 7-9; and Fig. 3.) The limiting step includes comparing the obtained queue length data to a queue threshold, and preventing use of the second functionality of the automated service device by the current user if the obtained queue length exceeds the

queue threshold. (See, e.g., Appellant's specification at page 11, lines 3-20; and Figs. 2-3.) The automated service device 12 is an ATM, a kiosk, and a self-checkout point-of-sale retail terminal. (See, e.g., Appellant's specification at page 6, lines 5-10; and Fig. 2.)

A further aspect of the invention relates to a method of operating an automated service device 12 that includes beginning a transaction on the automated service device in connection with a current user. (See, e.g., Appellant's specification at page 13, lines 16-20; and Fig. 3.) The method further includes obtaining data regarding a queue of potential users of the automated service device. (See, e.g., Appellant's specification at page 13, line 20 through page 14, line 1; and Fig. 3.) The method further includes determining whether to provide an optional communication to the current user of the automated service device based on the obtained queue data. (See, e.g., Appellant's specification at page 14, lines 1-19; and Fig. 3.)

Yet another aspect of the present invention relates to an automated service device 12 that includes a storage device 26 storing an optional communication. (See, e.g., Appellant's specification at page 5, lines 18-19; page 8, lines 10-16; and Fig. 1.) The automated storage device 12 further includes a processor 14 operative to support a main function transaction of the automated service device 12, as well as a display 18 in communication with the processor 18 and operative to show video in support of the main function transaction. (See, e.g., Appellant's specification at page 8, lines 10-16; and Fig. 1.) In addition, the automated service device 12 includes a queue detector 24 in communication with

the processor 14 and operative to obtain data regarding a queue of potential users of the automated service device 12. (See, e.g., Appellant's specification at page 8, line 17 through page 11, line 2; and Figs. 1-3.) Moreover, the processor is further operative to utilize the obtained queue data to provide the optional communication only when the queue data obtained by the queue detector is below a queue threshold. (See, e.g., Appellant's specification at page 11, lines 3-20; and Figs. 2-3.)

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Crabtree et al. (U.S. Patent No. 6,295,367) in view of Cataline et al. (US 2002/0116331).

(7) ARGUMENT

I. Rejection under 35 U.S.C. § 103 over Crabtree et al. (U.S. Patent No. 6,295,367) in view of Cataline et al. (US 2002/0116331)

Claims 1-22 are Not Unpatentable over Crabtree et al. (U.S. Patent No. 6,295,367) in view of Cataline et al. (US 2002/0116331)

Discussion Re: Patentability of Claim 17

i. Claim 17

Claim 17 reads as follows:

> 17. A method of operating an automated service device having first functionality and second functionality, comprising the steps of:
> obtaining queue length data regarding a queue of potential users of the automated service device during use of thereof by a current user; and
> limiting use by the current user of the automated service device to the first functionality only based on the obtained queue length data.

Appellant's invention of claim 17 is directed at solving, and in fact does solve, a problem in the prior art. In particular, automated service devices such as ATMs, kiosks, and self-checkouts provide transaction-oriented services (commonly termed "throughput") with regard to the particular type of automated service device. In addition, these devices may provide advertisements and other such messages (collectively termed "optional communications") to the user. Retailers, manufacturers and the like have found that such optional communications are an effective manner of advertising and/or presenting offers, promotions or the like to consumers since the consumer is "captive" throughout use of the automated service device.

A challenge to the designers of automated service devices is optimizing both throughput and optional communications exposures. Specifically, when

there is little or no queue to use such automated service devices, there is little detriment with providing optional communications to a current user. The relatively short increase in user time to view the optional communications does not tend to bother the current user. However, when there is a relatively long queue for using such automated service devices, the wait for a future user at the back of the queue is significantly increased. Indeed, the aggregation of the "relatively short increase" of each prior user in the queue results in a significant increase in wait time for such future user in the back of the queue. Such significant increase in wait tends to frustrate such future user. Appellant's invention of claim 17 is directed at overcoming, and in fact does overcome, the above-identified problem in the prior art.

ii. Proposed Combination of Crabtree and Cataline

In the October 1, 2004 Office Action (at page 4, lines 4-6), it was stated that:

> it would have been obvious ... to have included the optional communications of Cataline in Crabtree ... .

Further, in the October 1, 2004 Office Action (see page 3, lines 12-13), "optional communications" was apparently equated with Cataline's bill paying and funds transferring activity. Thus, it appears that the proposed combination is to modify Crabtree's video tracking system and banking machine system so that the banking machine would now be able to pay bills and transfer funds in the manner set forth in Cataline. And presumably, this resulting Crabtree/Cataline system would be further modified so that Crabtree/Cataline's banking machine would

only be operable for a current user to pay bills and transfer funds when the data obtained by the video tracking system indicates that the queue line during use by the current user is short enough.

iii. There Exists No Teaching, Suggestion, or Incentive which Supports Combining and Modifying Crabtree and Cataline in a Manner which Arrives at the Invention of Appellant's Claim 17

Neither Crabtree nor Cataline discloses or suggests altering banking machine functionality available to a current user based on the size of a queue line of potential users waiting to use the banking machine after the current user is finished. Clearly Cataline does not disclose or suggest this feature. And Crabtree merely appears to be related to *data gathering.* Indeed, Crabtree is concerned with monitoring (or tracking) the behavior of consumers in various locations of a retail establishment. Accordingly, Crabtree further does not provide the necessary motivation to one skilled in the art.

It is axiomatic that obviousness cannot be established by combining/modifying the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination/modification. Neither Crabtree nor Cataline (nor any other cited reference) provides any teaching, suggestion or incentive that supports the proposed combination/modification. Consequently, a prima facie case of obviousness under 35 U.S.C. § 103 has not been established with regard to Appellant's invention of claim 17.

In the Final Office Action dated October 1, 2004 (see page 6, lines 3-7) it was stated that:

> "applicant argues that neither Crabtree nor Cataline discloses or suggests 'altering banking machine functionality available to a current user based on the size of the queue line of potential users waiting to use the banking machine after the current user if finished.' Contrary to applicant's arguments, this feature is not in the claims and as a result a response to this argument is moot."

However, Appellant's claim 17 recites:

> limiting use by the current user of the automated service device to the first functionality only based on the obtained queue length data.

This is the claim feature to which Appellant's generalized comment was referring. Appellant's invention of claim 17 requires "limiting use by the current user ... to the first functionality only", and this limiting is "based on the obtained queue length data." Neither Crabtree nor Cataline (nor any of the prior art) provides any motivation to further modify the combined Crabtree/Cataline system to include this limitation. Thus, a prima facie case of obviousness under 35 U.S.C. § 103 has not been established with regard to Appellant's invention of claim 17.

Discussion Re: Patentability of Claims 18-20

Each of claims 18-20 depends directly or indirectly from claim 17. As a result, each of claims 18-20 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 17.

Discussion Re: Patentability of Claim 21

Claim 21 depends directly from claim 17. As a result, claim 21 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 17. Moreover, claim 21 further recites the following:

> wherein said limiting step includes the steps of:
> comparing the obtained queue length data to a queue threshold, and
> preventing use of the second functionality of the automated service device by the current user if the obtained queue length exceeds the queue threshold.

Cataline does not disclose or suggest these claim limitations. And Crabtree merely appears to be related to *data gathering*. However, in the Final Office Action dated October 1, 2004 (see page 4, lines 11-13), it was stated that:

> Crabtree discloses obtaining the queue length, number of potential users of the automated service device and comparing the obtained queue data against a queue threshold (cols. 5-39).

It is not clear where in the thirty-four (34) columns of text identified by the Examiner the "queue length" comparisons are taught. Indeed, these thirty-four (34) columns of text do not appear to be concerned with "queue length" at all, but rather tracking movement of objects in a scene. Moreover, even assuming for sake of argument that Crabtree discloses this limitation in such text, Crabtree clearly does not teach "preventing use of the second functionality of the automated service device by the current user if the obtained queue length exceeds the queue threshold" as required by Appellant's claim 21. Neither Crabtree nor Cataline remotely disclose this limitation. Thus, the proposed combination of Crabtree and Cataline does not arrive at the invention of Appellant's claim 21. Thus, the proposed combination of Crabtree and Cataline

further does not establish a prima facie case of obviousness under 35 U.S.C. § 103 with regard to the invention of claim 21.

Discussion Re: Patentability of Claim 22

Claim 22 depends directly from claim 17. As a result, claim 22 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 17.

Discussion Re: Patentability of Claim 1

Claim 1 recites the following limitation:

> determining whether to provide an optional communication to the current user of the automated service device based on the obtained queue data.

The discussion relating to the patentability of independent claim 17 is relevant to the patentability of independent claim 1. As a result, claim 1 is allowable over the Crabtree and Cataline.

Discussion Re: Patentability of Claims 2-6

Each of claims 2-6 depends directly or indirectly from claim 1. As a result, each of claims 2-6 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 1. Moreover, regarding the "queue length", and "comparing queue length to a queue threshold" limitations recited throughout claims 2-6, the Examiner made statements concerning the teaching of Crabtree. In particular, in the Final Office Action dated October 1, 2004 (see page 4, lines 11-13), it was stated that:

> Crabtree discloses obtaining the queue length, number of potential users of the automated service device and comparing the obtained queue data against a queue threshold (cols. 5-39).

However, the thirty-four (34) columns of text identified by the Examiner do not appear to be concerned with "queue length" at all, but rather tracking movement of objects in a scene. Accordingly, the proposed combination of Crabtree and Cataline does not appear to arrive at any of the inventions recited in Appellant's claims 2-6. Thus, Crabtree and Cataline further does not establish a prima facie case of obviousness under 35 U.S.C. § 103 with regard to any of the inventions recited in claims 2-6.

Discussion Re: Patentability of Claim 7

Claim 7 recites the following limitation:

> memory in communication with said processor and containing a plurality of program instructions which, when executed by said processor, causes said processor to:
>
> i) obtain queue data from said queue detector; and
>
> ii) determine whether to provide an optional communication to the current user based on the obtained queue data.

The discussion relating to the patentability of independent claim 17 is relevant to the patentability of independent claim 7. As a result, claim 7 is allowable over the Crabtree and Cataline.

Discussion Re: Patentability of Claims 8-12

Each of claims 8-12 depends directly or indirectly from claim 7. As a result, each of claims 8-12 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 7. Moreover, the

discussion relating to the patentability of claims 2-6 is relevant to the patentability of claims 8-12. As a result, each of claims 8-12 are further allowable over the Crabtree and Cataline.

Discussion Re: Patentability of Claim 13

Claim 13 recites the following limitation:

> the processor being further operative to utilize the obtained queue data to provide the optional communication only when the queue data obtained by said queue detector is below a queue threshold.

The discussion relating to the patentability of independent claim 17 is relevant to the patentability of independent claim 13. As a result, claim 13 is allowable over the Crabtree and Cataline.

Discussion Re: Patentability of Claims 14-16

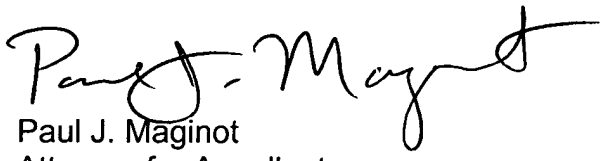
Each of claims 14-16 depends directly from claim 13. As a result, each of claims 14-16 is allowable over Crabtree and Cataline for, at least, the reasons hereinbefore discussed with regard to claim 13. Moreover, the discussion relating to the patentability of claims 2-6 is relevant to the patentability of claims 14-16. As a result, each of claims 14-16 are further allowable over the Crabtree and Cataline.

(8) CONCLUSION

Claims 1-22 are not unpatentable under 35 U.S.C. § 103 over Crabtree et al. (U.S. Patent No. 6,295,367) in view of Cataline et al. (US 2002/0116331).

Respectfully submitted,

MAGINOT, MOORE & BECK



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(9) CLAIM APPENDIX

1. A method of operating an automated service device comprising the steps of:

beginning a transaction on the automated service device in connection with a current user;

obtaining data regarding a queue of potential users of the automated service device; and

determining whether to provide an optional communication to the current user of the automated service device based on the obtained queue data.

2. The method of claim 1, wherein the step of obtaining data regarding a queue of potential users includes the step of obtaining queue length.

3. The method of claim 1, wherein the step of obtaining data regarding a queue of potential users includes the step of obtaining a number of potential users of the automated service device.

4. The method of claim 1, wherein the step of determining whether to provide an optional communication includes the step of comparing the obtained queue data against a queue threshold.

5. The method of claim 4, further comprising the step of not providing the optional communication when the queue threshold has been reached else providing the optional communication when the queue threshold has not been reached.

6. The method of claim 1, further comprising the step of repeating the steps of obtaining data regarding a queue of potential users of the automated service device and determining whether to provide an optional communication to the current user of the automated service device based on the obtained queue data during various positions in the transaction in connection with the current user.

7. An automated service system comprising:

a processor;

a queue detector in communication with said processor and operative to obtain data regarding a queue length of potential users of the automated service system;

a display in communication with said processor and operative to support a transaction on the automated service system by a current user; and

memory in communication with said processor and containing a plurality of program instructions which, when executed by said processor, causes said processor to:

i) obtain queue data from said queue detector; and

ii) determine whether to provide an optional communication to the current user based on the obtained queue data.

8. The system of claim 7, wherein said memory has further program instructions which, when executed by said processor, causes said processor to obtain queue data from said queue detector regarding queue length.

9. The system of claim 7, wherein said memory has further program instructions which, when executed by said processor, causes said processor to obtain queue data from said queue detector regarding number of potential users of the automated service system.

10. The system of claim 7, wherein said memory has further program instructions which, when executed by said processor, causes said processor to compare the obtained queue data against a queue threshold.

11. The system of claim 10, wherein said memory has further program instructions which, when executed by said processor, causes said processor to not provide the optional communication when the queue threshold has been reached else provide the optional communication when the queue threshold has not been reached.

12. The system of claim 7, wherein said memory has further program instructions which, when executed by said processor, causes said processor to repeat obtaining data regarding a queue of potential users of the automated service device and determining whether to provide an optional communication to the current user of the automated service device based on the obtained queue data during various positions in the transaction in connection with the current user.

13. An automated service device comprising:

a storage device storing an optional communication;

a processor operative to support a main function transaction of the automated service device ;

a display in communication with said processor and operative to show video in support of the main function transaction; and

a queue detector in communication with said processor and operative to obtain data regarding a queue of potential users of the automated service device;

the processor being further operative to utilize the obtained queue data to provide the optional communication only when the queue data obtained by said queue detector is below a queue threshold.

14. The automated service device of claim 13, wherein said queue data comprises queue length for use of the automated service device.

15. The automated service device of claim 13, wherein said queue data comprises number of potential users of the automated service device.

16. The automated service device of claim 13, wherein said queue detector is operative to obtain data regarding a queue of potential users of the automated service device at various times during the main function transaction, and said processor is further operative to determine whether to provide the optional communication to the current user of the automated service device at the various times during the main function transaction based on the queue data obtained at the various times during the main function transaction.

17. A method of operating an automated service device having first functionality and second functionality, comprising the steps of:

obtaining queue length data regarding a queue of potential users of the automated service device during use of thereof by a current user; and

limiting use by the current user of the automated service device to the first functionality only based on the obtained queue length data.

18. The method of claim 17, wherein:

said first functionality is main service functionality, and

said second functionality is optional communications.

19. The method of claim 18, wherein:

said main service functionality is selected from the group consisting of dispensing cash and transferring money, and

said optional communications is selected from the group consisting of displaying advertisements and displaying an offer for an additional service.

20. The method of claim 18, wherein:

said main service functionality includes performing a purchase transaction, and

said optional communications includes displaying an advertisement.

21. The method of claim 17, wherein said limiting step includes the steps of:

comparing the obtained queue length data to a queue threshold, and

preventing use of the second functionality of the automated service device by the current user if the obtained queue length exceeds the queue threshold.

22. The method of claim 17, wherein the automated service device is selected from the group consisting of an ATM, a kiosk, and a self-checkout point-of-sale retail terminal.